

**Notice of Allowability**

Application No.

09/896,088

Examiner

Eleni A. Shiferaw

Applicant(s)

ELLISON ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/13/2007.
2. ☒ The allowed claim(s) is/are 1-11, 13-17 and 19-34.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None . of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 02/13/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

NASSER MOAZZAMI  
SUPERVISORY PATENT EXAMINER  
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#### DETAILED ACTION

1. Appeal conference was held on September 4, 2006 for appeal brief filed on December 27, 2005. In response to the appeal conference, claims 13-17 and 34 were allowed, and claim 12 was objected as being dependent to base claim 1, in view of new ground of rejection. Applicant has amended the objected claim 12 and herein claims 1-11 and 30-33 are allowed. The examiner discloses an examiner's amendment for claims 19-29 below, based on the telephone interview with William W. Schaal on February 12, 2007. Moreover, the abstract and the specification page 6 lines 1-9 are amended and disclosed in the examiner's amendment below. The appellant's claims raised 101 issues that were resolved by the agreement on the telephone interview also disclosed below for claims 13 and 34.

#### *Claim status*

2. Claims 12 and 18 are canceled.

Claims 1-11, 13-17, 19-34 are allowed, among allowed claims, claims 1, 13, 27, and 37 are independent.

#### EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

William W. Schaal on February 12, 2007.

**Amendment to the Abstract:**

4. Please replace the prior Abstract with the following

~~In one embodiment, a~~ A method for key verification through time varying item presentation based on a key hash result ~~is described. The method comprises generating a key hash result partially based on both a global identifier provided from a source and an estimated current time at that source, After generating the key hash result, a first time-varying item is produced using the key hash result as an index for a table lookup or generated based on Certain bit patterns forming the key hash result. Thereafter, the first time-varying item is presented for comparison with a second time-varying item being contemporaneously presented at the source. These computations are repeated, giving the impression of two views or instances of the same time-varying item. An attacker might be able to match one small portion of such a time sequence of presentations, by luck, but not any large portion of the sequence.~~

**Amendments to the Specification:**

5. Please replace the prior paragraph on page 6, lines 1-9 of the specification with the following

When the computing unit is employed as software, such software features a plurality of software modules, each being instructions or code that, when executed, perform certain function or functions. The software is stored in platform readable medium, which is any medium that can store ~~or transfer~~ information. Examples of "platform readable medium"

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include, but are not limited or restricted to a programmable electronic circuit, a semiconductor memory device, a volatile memory (e.g., random access memory, etc.), a non-volatile memory (e.g., read-only memory, flash memory, etc.), a floppy diskette, a compact disk, an optical disk, a hard drive disk, or any ~~type of link (defined below)~~ other medium determined to be statutory.

3. Claims 13, 19-27 and 34 are amended as follows.

13. (Currently Amended) A software stored in platform readable medium executed by internal circuitry within a computing unit, the software including software modules causing the computing unit to perform the following function comprising:

(a) a first software module to periodically generate a key hash result based on at least a global identifier of a source and an estimated current time at the source providing the global identifier;

(b) a second software module to produce successive images varied after each selected time interval for display on a display screen of the computing unit, a first time-varying image of the successive images being based on a first key hash result; and

(c) a third software module to present the successive images for sensory comparison with a succession of time-varying images at the source.

19. (Currently Amended) The network of claim 27, wherein the second ~~A computing unit comprising comprises:~~

a casing;

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an input/output (I/O) interface;

a device that provides sensory data for a user, the device being integrated into the casing; and

internal circuitry contained within the casing and controlling information presented by the device, the internal circuitry to generate a key hash result based on the a global identifier of the first ~~a second~~ computing unit remotely located from the second computing unit and the local time value ~~an estimated current time~~ at the ~~second~~ first computing unit.

20. (Currently Amended) The ~~computing unit~~ network of claim 19, wherein the internal circuitry of the second computing unit is a memory and a processor accessing information from the memory.

21. (Currently Amended) The ~~computing unit~~ network of claim 19, wherein the I/O interface of the second computing unit is an antenna to receive signals from the ~~second~~ first computing unit and provide the signals to the internal circuitry for processing.

22. (Currently Amended) The ~~computing unit~~ network of claim 19, wherein the I/O interface of the second computing unit to receive a verification packet including at least the global identifier and the ~~a~~ local time value at which the verification packet was formed prior to transmission to the second computing unit.

23. (Currently Amended) The ~~computing unit~~ network of claim 22, wherein the internal circuitry of the second computing unit generates the key hash result based on the global identifier, the ~~estimated~~ local ~~current time~~ value at the ~~second~~ first computing unit and data

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contained in a data field of the verification packet.

24. (Currently Amended) The ~~computing unit network~~ of claim 19, wherein the device of the second computing unit is a display screen that displays the information being time-varying images.

25. (Currently Amended) The ~~computing unit network~~ of claim ~~23~~ 19, wherein device of the second computing unit is at least one speaker that playback audible sounds which vary in time based on a value of the key hash result.

26. (Currently Amended) The ~~computing unit network~~ of claim ~~23~~ 19, wherein device of the second computing unit is at least a tactile device that produces Braille patterns which vary in time based on a value of the key hash result.

27. (Currently Amended) A network comprising:

a first computing unit to (i) transmit successive verification packets each including a static global identifier and a varying local time value realized at the first computing unit during formation of that verification packet, (ii) generate successive first time-varying items based on the global identifier and local time value ~~contents provided within their corresponding verification packet~~, and (iii) present the first time-varying items in successive fashion; and

a second computing unit to (i) receive each verification packet, (ii) compute a clock skew to determine a time difference between the first computing unit and the second computing unit in response to receipt of a first verification packet, (iii) generate successive second time-varying items based on information derived from the global identifier and the

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local time value of the first computing unit contents provided by their corresponding verification packet, and (iv) present the second time-varying items for sensory comparison with the first time-varying items to verify usage of the global identifier by both the first computing unit and the second computing unit.

34. (Currently Amended) A software stored in platform readable medium executed by internal circuitry within a computing unit, the software including software modules causing the computing unit to perform the following function comprising:

(a) a first software, module to periodically generate key hash results based on at least a global identifier of a source and an estimated current time at the source providing the global identifier;

(b) a second software module to produce successive audible sounds varied after each selected time interval for playback over speakers of the computing unit, a first time-varying audible sound of the audible sounds being based on a First key hash result of the key hash results; and

(c) a third software module to playback the successive audible sounds for sensory comparison with a succession of audible sounds contemporaneously produced at the source in order for the user of the computing unit to verify accurate receipt of the global identifier of the source.

*Allowable Subject Matter*

6. Claims 1-11, 13-17, 19-34 are allowed in light of appeal conference and amendments in compliance with the allowed claims during the appeal conference.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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*ER*

February 15, 2007

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